DID authentication O2O Platform

Mobile Passport

World's first mobile identity authentication platform generating QR code on mobile based on passport information.
Read user's passport information on mobile and verify the authenticity through dedicated network
of the government organizations (Ministry of Foreign Affairs, Ministry of Justice, and Korea Customs Service).
Only after the authenticity confirmed, "Mobile Passport" can be generated.

"Mobile Passport" Creation Process

Step 1
Passport information
OCR recognition

Step 2
Electronic passport chip
NFC recognition

Step 3
Biometric authentication
(face, fingerprint)

Step 4
Identification through the dedicated
network of the government organizations
(Ministry of Foreign Affairs, Ministry of Justice,
and Korea Customs Service)
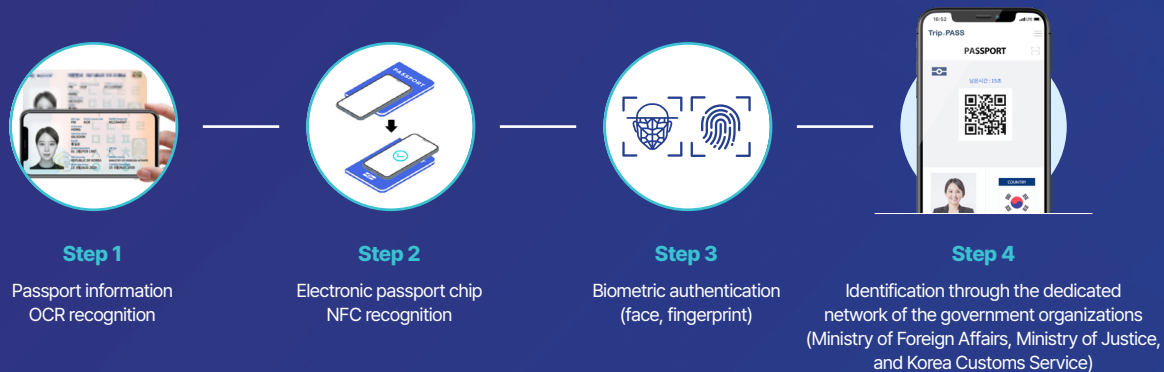
Patents and Technical Certificates

20 Domestic and International patents (8 registered and 12 applied)

Core Original Patents

Mobile Passport generation system	Mobile payment and tax refund system and method using QR code	Passport recognition system and passport recognition method using it	Accredited identity authentication system and method
Registered (10-2017-0065607)	Registered (10-2018-0064730)	Registered (10-2018-0088850)	Applied (10-2021-0074578)

Technical Certificates

Nice D&B
TI-2 Best Grade
Best Grade

Technical Assurance Fund
Technical Patent Evaluation
Grade A

Licenses and Awards

Venture Business
Certification, InnoBiz
Certification

Electronic finance business
license, Tax refund counter
operation business license,
Tourism business license

2021 Minister of Culture, Sports, and Tourism Award,
2022 Chairman of the Financial Services
Commission Award.

Security Technology

🔵 Security of Mobile Passport Creation
(9 technologies verified by KISA)

1	Blockchain DID	3 Private blockchain nodes are configured to prevent forgery of the ledger and improve blockchain speed (IBM: Hyperledger fabric)
2	Electronic passport chip recognition	Recognition of passport information stored in electronic passport IC chip to fundamentally prevents forgery/modulation source
3	Biometric authentication	Fingerprint & facial recognition login, and prevention of forgery/modulation
4	Photo image bit encryption	10mb image with no change in file size → 0.1 msec encryption
5	E2E Data Encryption Transfer	Encrypt and Send of Data
6	Real-time authentication	Connecting a dedicated line to the Korea Customs Service (ARIA Encryption Communication) & Ministry of Justice (Hikorea WEB Scraping)
7	Passport owner authentication	Authenticate through comparing Photo data of electronic passport IC chip and user's facial recognition. Fundametally block sources of fraudulent use.
8	App security technology	OS modulation, Screen copy prohibition, APP modulation debugging detection, DATA safe zone storage
9	Server Security Technology	Applying international standards financial cloud. ISO/IEC 27017 (Cloud Information Protection Standard) & ISO/IEC 27018 (Cloud Privacy Standard)

🔵 Security of Mobile Passport Use

· Private key security management	Key Management System (KMS) and Service app WhiteBox Crypto (with NIST FIPS 140-2 Level 1 certified WBC) applied
· Encrypted Communications	End to End Encrypted Communications
· Biological Information Authentication	FIDO2-based user biometric authentication
· DID-based electronic signature authentication	

🔵 Personal Information Protection System

· Firewall IPS function	Block unauthorized IP intrusion
· PC centralized vaccine installation	Central control and IT asset management/media-control/web/ software-blocking- management
· Information Protection System	Adopt of Information Leakage Prevention Solution with Integrated PC Security
· IDC network isolation operations	General service access is managed only by web/communication servers in the DMZ. Server management service access (SSH, SFTP, TELNET, RCP) is limited to VPN connections.

Business

Mobile Identity Authentication

Global Simple Payment

SmartPass

Financial/ Communication Service

Mobile Tax-Free Shopping

Vaccine Passports

Mobile Passport + Daily life
Mobile Passport is available
in all areas of daily life that require
Untact identity authentication

SmartPass

"Hotel Fast Check In&out" – From identity authentication to fill up entry form, with nothing more than a mobile QR code.
"Walking-through Entry Authentication" - Even in casinos, Simply Walk-in only with facial recognition.
"Mobile identity authentication" - Even at Duty Free shops, No need of physical passport!

Casino "Walking-through" service process

Step 1 Install [Trip.PASS], create and register Mobile Passport
Step 2 First time physical passport check and Mobile Passport QR authentication
Step 3 QR / Facial recognition entry service register
Step 4 Convenient automatic entry authentication with facial recognition or QR code

기획재정부
과학기술정보통신부
KISA 한국인터넷진흥원
Incheon Airport
GKL 그랜드코리아레저

Fintech

Now foreigners also be like Locals!
Everyone can enjoy all the living financial services necessary for tourism on mobile, such as simple payment,
transportation card, and electronic certificate issuance.

"Transportation card" service process

Step 1 Install [Trip.PASS], create and register Mobile Passport
Step 2 Charge the transportation prepaid card in the app
Step 3 Easy NFC payment on buses, subways, taxis, etc

서울특별시
Jeju
신한카드
KB 국민카드

Tax-Free shopping (Tax Refund)

All procedures for Tax-Free shopping, such as passport presentation, receipt issuance,
refund counter visit, customs inspection, etc. are resolved at once on mobile.
Mobile Tax-Free Shopping, Fastest and the most convenient Tax Refund service

"Tax-Free Payment"| service process

Step 1 Purchase at merchant
Step 2 Create a QR code for payment (APP)
Step 3 Scan the QR code
Step 4 On-site immediate tax discount payment
Step 5 Issue a mobile receipt

zero Pay
서울특별시
BGF Life Network Company   CU
WeChat
sba   sit

Mobile Passport
Performances

⦿ Government Organization Businesses

2022 Seoul Metropolitan Government Seoul Pay+ Global
Designated Seoul Local Voucher SeoulPay+ Global operator.
Seoul Local Voucher global payment and tax refund project in progress.

서울특별시

2022 Incheon International Airport SmartPass Project
Biometric information based Untact identity authentication service.
"Mobile Passport" technology provision contract signed and the project in progress.

Incheon Airport

**2022 Ministry of Culture, Sports and Tourism supervised
Foreigner-only Casino GKL, SmartPass Project**
Foreigner identity authentication and facial recognition easy entry service in progress
(K-Testbed project completed in 2021)

문화체육관광부

**2021 Ministry of Science and ICT, Korea Internet & Security Agency
'New tech applied untact security service' pilot project completed**
Develop the untact identity authentication service platform for foreigners staying in Korea

과학기술정보통신부
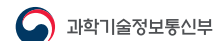
2020 Seoul Metropolitan Government, Seoul Business Agency (SBA) Testbed Project
Mobile Passport based QR code-type mobile immediate tax refund business demonstrated.

서울특별시

⦿ Private Enterprises Businesses

Foreigner Financial Services
Providing a Mobile Passport system within the KB Kookmin Card platform

KB 국민카드

Public FinTech Business Consortium
Designated as the foreigner business operator in charge of the Seoul Metropolitan
Government's local Voucher business "SeoulPay + Global"

신한카드

WeChat - ZeroPay Immediate Tax refund merchant business
Provide Tax Refund service to 1.4 million ZeroPay merchants and
simple payment & mobile immediate Tax Refund service to 1.4 billion WeChat users.

WeChat

BGF Retail, BGF Networks Immediate Tax Refund Business
Provide Tax Refund service to nationwide 16,000 CU convenience stores.

CU

Lotte Duty Free DID(Decentralized Identifier) Authentication Shopping
No need of passport, mobile one-pass identity authentication Duty Free shopping

LOTTE DUTY FREE

The Smartest Way to Enjoy Travel!

Trip. PASS

Borderless Travel Platform Trip.PASS

Realize diffrenciated "Smart Travel Service"
with Lordsystem's unique DID(Decentralized Identifier)
authentication platform "Mobile Passport"

How to use Trip. PASS

Step 1
Go to the QR link and download the AOS/IOS [Trip.PASS].

Step 2
Register your passport information to create your own "Mobile Passport".

1 Passport shooting — 2 NFC tag recognition — 3 Facial recognition — 4 Mobile Passport creation completed

Step 3
Enjoy All-in-one tourism services such as mobile identity authentication, QR simple payment, mobile transportation card, and mobile Tax-Free shopping with Trip.PASS!